

Dr. Duke's Phytochemical and Ethnobotanical Databases

List of Plants for ALPHA-THUJENE

Plant	Part	Low PPM	High PPM	StdDev	Reference
Piper cubeba	Fruit Essent. Oil	120000.0	130000.0	1.694415544579461	--
Piper nigrum	Fruit Essent. Oil	7300.0	29000.0	-0.22630241280017493	--
Melaleuca alternifolia	Essential Oil	4400.0	15000.0	-0.303780787236796	--
Elettaria cardamomum	Plant	1330.0	3047.0	1.2969582121204046	--
Elettaria cardamomum	Fruit	1330.0	3047.0	2.2243250322627803	Duke, J. A. and duCellier, J. L. 1993. CRC Handbook of Alternative Cash Crops. CRC Press. Boca Raton, FL 33431. 536 pp. US \$312.50.
Piper cubeba	Fruit	1100.0	2200.0	1.4401949119825743	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Petroselinum crispum	Fruit Essent. Oil	1000.0	2600.0	-0.7283514630459411	--
Monarda punctata	Plant	220.0	720.0	-0.12490105828395985	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Melaleuca linariifolia	Leaf	150.0	200.0	1.3864103732522657	Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.
Thymus capitatus	Plant	60.0	190.0	-0.44874524105762253	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Ocimum gratissimum	Plant	50.0	445.0	-0.29293341727029426	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Rosmarinus officinalis	Shoot	37.0	90.0	1.065963780167936	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Anethum graveolens	Fruit	36.0	231.0	-0.3826530299675151	--
Anethum graveolens	Seed	36.0	231.0	-0.09092270877057655	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Sideritis mugronensis	Flower	35.0	45.0	1.0	Manez, S., Jimenez, A., and Villar, A. 1991. Volatiles of Sideritis mugronensis Flower and Leaf. J. Ess. Oil Res., 3: 395-397.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Rosmarinus eriocalyx	Shoot	33.0	52.0	0.38074256637358916	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Rosmarinus eriocalyx	Shoot	33.0	52.0	0.38074256637358916	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Pycnanthemum montanum	Shoot	28.0	32.0	0.02009982227130132	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Juniperus communis	Fruit	24.0	240.0	-0.37432106883112565	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Rosmarinus tomentosus	Shoot	16.0	30.0	-0.015964452138927467	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Citrus limon	Essential Oil	16.0	40.0	-0.40032749008251933	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Thymus serpyllum	Plant	15.0	306.0	-0.3778661369033869	--
Origanum majorana	Plant	15.0	1100.0	0.10728911049715678	--
Rosmarinus officinalis	Shoot	12.0	50.0	0.3446782919633604	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Anethum graveolens	Leaf	10.0	25.0	-0.3676513337976657	--
Origanum vulgare	Plant	6.0	32.0	-0.545287469129771	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Peumus boldus	Leaf	5.0	18.0	-0.4378138020796629	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Origanum minutiflorum</i>	Shoot	5.0	7.0	-0.43070360785655853	Baser, K.H.C., Tumen, G., Sezik, E. 1991. The Essential Oil of <i>Origanum minutiflorum</i> O. Schwarz and P.H. Davis. J. Ess. Oil Res. 3: 445-446.
<i>Satureja montana</i>	Plant	5.0	300.0	-0.38153229746308875	--
<i>Petroselinum crispum</i>	Seed	4.0	490.0	1.2676723818974631	--
<i>Sideritis mugronensis</i>	Leaf	4.0	6.0	-0.5580923191345154	Manez, S., Jimenez, A., and Villar, A. 1991. Volatiles of <i>Sideritis mugronensis</i> Flower and Leaf. J. Ess. Oil Res., 3: 395-397.
<i>Monarda fistulosa</i>	Plant	3.0	2480.0	0.9505060392285806	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Salvia dorisiana</i>	Shoot	2.3	2.9	-0.5046353703975276	Tucker, A.O. & Maciarello, M.J. 1994. The Essential Oil of <i>Salvia dorisiana</i> Standley. J. Ess. Oil Res. 6: 97-8.
<i>Myrtus communis</i>	Shoot	2.0	18.0	-0.23235009860030018	--
<i>Monarda didyma</i>	Plant	2.0	20.0	-0.5526197902491747	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Rosmarinus officinalis</i>	Plant	1.0	475.0	-0.274602614471785	--
<i>Citrus reticulata</i>	Fruit	1.0	2.0	-0.5946551522156464	--
<i>Angelica archangelica</i>	Root	1.0	13.0		--
<i>Lavandula latifolia</i>	Plant	1.0	19.0	-0.553230817009125	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Citrus sinensis</i>	Fruit	0.7	1.0	-0.5955809256752451	--
<i>Rosmarinus x lavandulaceus</i>	Shoot	0.1	30.0	-0.015964452138927467	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the <i>Rosmarinus eriocalyx-tomentosus</i> Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
<i>Rosmarinus x mendizabalii</i>	Shoot	0.1	22.0	-0.1602215497798426	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the <i>Rosmarinus eriocalyx-tomentosus</i> Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Salvia officinalis</i>	Leaf	0.0	386.0	3.2507273876024785	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
<i>Eucalyptus polyanthemos</i>	Shoot		50.0	0.3446782919633604	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264.
<i>Leonotis leonurus</i>	Se		2.0		Pedro, L.G., Barroso, J.G., Marques, N.T., Ascensao, L., Pais, M.S.S. and Scheffer, J.J.C. 1991. Composition of the Essential Oil from Sepals of <i>Leonotis leonurus</i> R. Br. <i>J. Ess. Oil Res.</i> 3: 451-3
<i>Murraya koenigii</i>	Leaf		37.0	-0.24737281674281325	--
<i>Artemisia annua</i>	Plant		6500.0	3.4068336142288143	--
<i>Satureja cuneifolia</i>	Shoot		10.0	-0.3766071962412153	Tumen, G. 1991. The Volatile Constituents of <i>Satureja cuneifolia</i> . <i>J. Ess. Oil Res.</i> , 3: 365-366.
<i>Satureja montana</i>	Essential Oil		7400.0	-0.3528285774525378	--
<i>Vitex agnus-castus</i>	Leaf		1.4	-0.604199084005542	Ekundayo, O., Laakso, I., Holopainen, M., Hiltunen, R., Oguntiemein, B., and Kauppinen, V. 1990. The Chemical Composition and Antimicrobial Activity of the Leaf Oil of <i>Vitex agnus-castus</i> L. <i>J. Essential Oil Research</i> , 2: 115-119.
<i>Micromeria fruticosa</i>	Shoot		7.0	-0.43070360785655853	Fleisher, Z. and Fleisher, A. 1991. The Essential Oil of <i>Micromeria fruticosa</i> (L.) Druce subsp. <i>barbata</i> (Boiss et. Ky.), P.H. Davis. <i>Aromatic Plants of the Holy Land and the Sinai. Part VII. J. Ess. Oil Res</i> 3: 477-479.
<i>Thymus funkii</i>	Shoot		65.0	0.6151603500400763	Vila, R., et al. 1995. Composition and study of the variability of the essential oil of <i>Thymus funkii</i> Cousson. <i>Flav. & Fragr. J.</i> 10(6): 379-383.
<i>Cuminum cyminum</i>	Seed		24.0	-1.1767496731268863	Lawrence, B.M., <i>Essential Oils 1976-1977</i> , <i>Essential Oils 1978</i> , <i>Essential Oils 1979-1980</i> .

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Micromeria fruticosa</i>	Shoot		7.0	-0.43070360785655853	Fleisher, Z. and Fleisher, A. 1991. The Essential Oil of <i>Micromeria fruticosa</i> (L.) Druce subsp. <i>barbata</i> (Boiss et. Ky.), P.H. Davis. Aromatic Plants of the Holy Land and the Sinai. Part VII. J. Ess. Oil Res 3: 477-479.
<i>Thymus funkii</i>	Shoot		65.0	0.6151603500400763	Vila, R., et al. 1995. Composition and study of the variability of the essential oil of <i>Thymus funkii</i> Cousson. Flav. & Fragr. J. 10(6): 379-383.
<i>Hyssopus officinalis</i>	Shoot		30.0	-0.015964452138927467	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (<i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
<i>Hyssopus officinalis</i>	Shoot		30.0	-0.015964452138927467	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (<i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
<i>Coleus barbatus</i>	Root Essent. Oil		3000.0	-0.7732821835157451	Jim Duke's personal files.
<i>Hyssopus officinalis</i>	Shoot		20.0	-0.1962858241900714	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (<i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
<i>Hyssopus officinalis</i>	Shoot		30.0	-0.015964452138927467	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (<i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
<i>Hyssopus officinalis</i>	Shoot		30.0	-0.015964452138927467	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (<i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
<i>Teucrium salviastrum</i>	Shoot				Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Hyssopus officinalis	Shoot				Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (<i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Tanacetum parthenium	Fruit Essent. Oil		2000.0	-0.7397616687333448	--
Carum carvi	Seed				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Cuminum cyminum	Fruit		24.0	-0.5742881361044722	--
Hyssopus officinalis	Shoot		60.0	0.5249996640145044	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (<i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Tanacetum parthenium	Essential Oil		6000.0	-0.36186369670280605	--
Teucrium gnaphalodes	Shoot		5.0	-0.4667678822667873	Perez-Alonso, M.J. Velasco-Negueruela, A. and Lopez-Saez, J.A. 1993. The Essential Oils of Two Iberian Teucrium Species. J. Ess. Oil Res. 5: 397-402.
Hyssopus officinalis	Shoot		50.0	0.3446782919633604	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (<i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Foeniculum vulgare	Seed				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Hyssopus officinalis	Shoot				Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (<i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Hyssopus officinalis	Shoot		20.0	-0.1962858241900714	Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop (<i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781.
Coriandrum sativum	Fruit				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Plectranthus amboinicus	Plant				--
Eucalyptus punctata	Shoot		0.1	-0.5551253545718478	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Rosmarinus officinalis	Shoot Essent. Oil		3500.0	-1.4107399372790863	--
Rosmarinus officinalis	Shoot		1.0	-0.5388964310872448	Tucker, A. O. and Maciarello, M. J. 1998. The essential oils of some rosemary cultivars. Flavor and Fragrance Journal, 1: 137-142. 1986.
Rosmarinus officinalis	Leaf Essent. Oil				--
Mentha arvensis var. piperascens	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Chrysanthemum parthenium	Shoot		15.0	-0.2864465102156434	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
Eucalyptus maculata	Shoot		0.1	-0.5551253545718478	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Sideritis pauli	Shoot		10.0	-0.3766071962412153	Burzaco, A., Velasco-Negueruela, A. and Perez-Alonso, M.J. 1992. Essential Oil Analysis of Sideritis pauli Pau. FFJ7: 47-8. 1992.
Boswellia sacra	Resin, Exudate, Sap		192300.0	1.0	Chiavari, G., Galletti, G. C., Piccaglia, R., Mohamud, M. A. 1991. Differentiation Between Resins Boswellia carterii and Boswellia frereana (Frankincense) of Somali Origin. J. Essent. Oil Res. 3 (3):185-186.
Syzygium aromaticum	Fruit				--
Hyssopus officinalis	Shoot		0.1	-0.5551253545718478	Tsankova, E.T., Konatchiev, A.N. and Genova, E.M. 1993. Chemical Composition of the Essential Oils of Two Hyssopus officinalis cultivars. J. Ess. Oil Res. 5: 609-611.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Hyssopus officinalis</i>	Shoot				Tsankova, E.T., Konatchiev, A.N. and Genova, E.M. 1993. Chemical Composition of the Essential Oils of Two <i>Hyssopus officinalis</i> cultivars. <i>J. Ess. Oil Res.</i> 5: 609-611.
<i>Melaleuca alternifolia</i>	Leaf		76.0	0.14353236368545716	--
<i>Eucalyptus albens</i>	Shoot		0.1	-0.5551253545718478	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven <i>Eucalyptus</i> Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264.
<i>Angelica archangelica</i>	Root Essent. Oil				--
<i>Tagetes filifolia</i>	Shoot		4.7	-0.4721775234283216	--
<i>Laurus nobilis</i>	Flower		12.6	-0.9999999999999996	--
<i>Eucalyptus camaldulensis</i>	Shoot		110.0	1.426606524270224	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven <i>Eucalyptus</i> Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264.
<i>Laurus nobilis</i>	Bark		0.0		--
<i>Anethum graveolens</i>	Leaf Essent. Oil		33400.0	1.3792500393171634	--
<i>Laurus nobilis</i>	Wood		0.0		--
<i>Anethum graveolens</i>	Essential Oil				--
<i>Cinnamomum verum</i>	Leaf		19.0	-0.42779059232509187	Mallavarupu, G. R. et al. 1995. Investigation of the essential oil of cinnamon leaf grown at Bangalore and Hyderabad. <i>Flav. & Fragr. J.</i> , 10: 239-242.
<i>Anethum graveolens</i>	Shoot Essent. Oil		10600.0	0.6195817292104092	--
<i>Piper auritum</i>	Leaf				Tramil
<i>Teucrium scorodonia</i>	Shoot		0.13	-0.5545843904556943	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus maidenii	Shoot		0.1	-0.5551253545718478	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Mentha spicata	Essential Oil				--
Pimenta dioica	Leaf		20.0	-0.4177673825705209	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Thymus zygis	Shoot		0.1	-0.5551253545718478	Jimenez, J., Navarro, M.C., Montilla, M.P., Martin, A. and Martinez, A. 1993. Thymus zygis Oil: Its Effects on CCl4-Induced Hepatotoxicity and Free Radical Scavenger Activity. JEO5: 153-8.
Salvia officinalis	Leaf Essent. Oil		13800.0	-0.41897395872827414	--
Vitex agnus-castus	Leaf Essent. Oil		7900.0	-0.9602760805888906	Jim Duke's personal files.
Salvia officinalis	Essential Oil		1200.0	-0.3928412484180114	--
Callicarpa americana	Leaf		1.0	-0.6082083679073705	--
Vitex agnus-castus	Flower				Jim Duke's personal files.
Vitex agnus-castus	Fruit				Jim Duke's personal files.
Piper nigrum	Fruit				--
Croton eluteria	Bark				--
Origanum majorana	Essential Oil		19000.0	-0.27796616080745823	--
Pastinaca sativa	Root				--
Thymus vulgaris	Essential Oil		9200.0	-0.3412119955593358	--
Lepechinia calycina	Plant		10.0	-0.5587300578486778	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Origanum vulgare	Shoot Essent. Oil		11200.0	0.7911582080686764	--
Eucalyptus siderophloia	Shoot		0.1	-0.5551253545718478	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Brassica oleracea var. capitata L.	Shoot		18.0	-0.23235009860030018	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus melliodora	Shoot		0.1	-0.5551253545718478	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
Origanum onites	Plant		16.0	-0.5550638972889759	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Origanum onites	Shoot		33.0	0.03813195947641571	Lagouri, V., Blekas, G., Tsimidou, M., Kokkini, S., and Boskou, D. 1993. Composition and Antioxidant Activity of Essential Oils from Oregano Plants Grown Wild in Greece. Z. Lebensm Unters Forsch 197: 20-23.
Foeniculum vulgare	Fruit				--
Satureja thymbra	Shoot		295.0	4.762551907216386	Lagouri, V., Blekas, G., Tsimidou, M., Kokkini, S., and Boskou, D. 1993. Composition and Antioxidant Activity of Essential Oils from Oregano Plants Grown Wild in Greece. Z. Lebensm Unters Forsch 197: 20-23.
Boswellia serrata	Essential Oil		500000.0	2.8262426673204106	--
Melaleuca alternifolia	Root Essent. Oil		133000.0	1.4120805090287523	--
Teucrium oxylepis	Shoot				Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.
Mentha spicata	Leaf				Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Teucrium asiaticum	Shoot		0.1	-0.5551253545718478	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six Teucrium Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.
Daucus carota	Shoot		12.0	-0.34054292183098656	--
Origanum vulgare	Shoot		315.0	5.123194651318674	Lagouri, V., Blekas, G., Tsimidou, M., Kokkini, S., and Boskou, D. 1993. Composition and Antioxidant Activity of Essential Oils from Oregano Plants Grown Wild in Greece. Z. Lebensm Unters Forsch 197: 20-23.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Abies alba</i>	Leaf				--
<i>Crocus sativus</i>	Silk Stigma Style				--
<i>Eucalyptus sideroxylon</i>	Shoot		40.0	0.16435691991221646	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264.
<i>Eucalyptus moluccana</i>	Shoot		170.0	2.5085347565770877	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264.
<i>Citrus limon</i>	Petiole		20.0		--
<i>Micromeria varia</i>	Shoot		15.0	-0.2864465102156434	Pedro, L.G., et al. 1995. Composition of the Essential oil of <i>Micromeria varia</i> Benth. ssp. <i>thymoides</i> (Sol. ex Lowe) Perez var. <i>thymoides</i> , and endemic species of the Madeira Archipelago. <i>flav. & Fragr. J.</i> 10(3): 199-202.
<i>Micromeria varia</i>	Shoot		15.0	-0.2864465102156434	--
<i>Tanacetum parthenium</i>	Shoot		15.0	-0.2864465102156434	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of <i>Tanacetum parthenium</i> (L.) Schultz-Bip. <i>Flavor and Fragrance Journal</i> 11(6): 367-71.
<i>Thymus riatarum</i>	Shoot		120.0	1.606927896321368	Iglesias, J., Vila, R., Canigueral, S., Bellakdhar, and II Idrissi, A. 1991. Analysis of the Essential Oil of <i>Thymus riatarum</i> . <i>J. Ess. Oil Res.</i> 3: 43-4.
<i>Eucalyptus citriodora</i>	Shoot		0.1	-0.5551253545718478	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264.
<i>Coridothymus capitatus</i>	Shoot		22.0	-0.1602215497798426	Lagouri, V., Blekas, G., Tsimidou, M., Kokkini, S., and Boskou, D. 1993. Composition and Antioxidant Activity of Essential Oils from Oregano Plants Grown Wild in Greece. <i>Z. Lebensm Unters Forsch</i> 197: 20-23.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Citrus aurantiifolia	Fruit		40.0	-0.5594757607508909	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Acinos alpinus	Ah		1.0		Velasco-Negueruela,A., Perez-Alonso,M.J., Jiminez,S.M. and Garcia,F.M. 1993. The Volatile Constituents of Acinus alpinus (L.) Moench ssp. meridionalis (Nyman). P.W. Ball Growing in Spain. Flav. & Frag. J. 8:127-130.)
Satureja obovata	Leaf		65.0	0.03327705638517577	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. Phytochemistry 35(1): 83.
Acinos alpinus	Shoot		1.0	-0.5388964310872448	Velasco-Negueruela,A., Perez-Alonso,M.J., Jiminez,S.M. and Garcia,F.M. 1993. The Volatile Constituents of Acinus alpinus (L.) Moench ssp. meridionalis (Nyman). P.W. Ball Growing in Spain. Flav. & Frag. J. 8:127-130.)
Satureja obovata	Leaf				Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. Phytochemistry 35(1): 83.
Satureja obovata	Leaf				Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. Phytochemistry 35(1): 83.
Citrus paradisi	Pericarp		1.0		--
Achillea millefolium	Leaf				--
Satureja obovata	Leaf		65.0	0.03327705638517577	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. Phytochemistry 35(1): 83.
Hyptis suaveolens	Shoot		21.0	-0.178253686984957	Mallavarapu, G.R., Ramesh, S., Kaul, P.N., Bhattacharya, A.K., and Rao, B.R.R. 1993. The Essential Oil of Hyptis suaveolens (L.) Poit. J. Ess. Oil Res. 5: 321.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Hyptis suaveolens</i>	Shoot		21.0	-0.178253686984957	Mallavarapu, G.R., Ramesh, S., Kaul, P.N., Bhattacharya, A.K., and Rao, B.R.R. 1993. The Essential Oil of <i>Hyptis suaveolens</i> (L.) Poit. J. Ess. Oil Res. 5: 321.
<i>Pimenta dioica</i>	Fruit		14.0	-0.5835458707004604	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Eucalyptus occidentalis</i>	Shoot		0.1	-0.5551253545718478	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Eucalyptus astringens</i>	Shoot		0.1	-0.5551253545718478	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Teucrium oxylepis</i>	Shoot		0.07	-0.5556663186880012	Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. Phytochemistry 29(4): 1165-9.
<i>Boswellia serrata</i>	Resin, Exudate, Sap		80000.0	-1.0	Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.
<i>Eucalyptus cladocalyx</i>	Shoot		10.0	-0.3766071962412153	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.
<i>Juniperus sabina</i>	Plant				--
<i>Laurus nobilis</i>	Leaf		5.7	-0.5610992820608867	--
<i>Salvia gilliesii</i>	Shoot		2.5	-0.5118482252795733	Velasco-Negueruela, A. et al. 1993. The Essential Oil of <i>Salvia gilliesii</i> Benth. J. Ess. Oil Res. 5: 319-320.
<i>Pimpinella anisum</i>	Essential Oil				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Eucalyptus globulus</i>	Shoot		0.1	-0.5551253545718478	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264.
<i>Pinus sylvestris</i>	Leaf Essent. Oil				--
<i>Trichostemma dichotomum</i>	Shoot		35.0	0.0741962338866445	Tucker, A.O. and Maciarello, M.J. 1990. The Essential Oil of <i>Trichostemma dichotomum</i> . <i>J. Ess. Oil Res.</i> 2: 149-150.
<i>Eucalyptus blakelyi</i>	Shoot		0.1	-0.5551253545718478	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264.
<i>Petroselinum crispum</i>	Leaf		0.1	-0.6172292566864845	--
<i>Eucalyptus oviformis</i>	Shoot		35.0	0.0741962338866445	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264.
<i>Eucalyptus botryoides</i>	Shoot		0.1	-0.5551253545718478	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264.
<i>Elettaria cardamomum</i>	Root Essent. Oil		11000.0	-0.638798325513007	--
<i>Myristica fragrans</i>	Seed				Leung, A.Y., <i>Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics</i> , John Wiley & Sons, New York, 1980.
<i>Teucrium pseudoscorodonia</i>	Shoot				Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9.
<i>Petroselinum crispum</i>	Seed Essent. Oil		7000.0	-1.0	--
<i>Myristica fragrans</i>	Seed Essent. Oil		30000.0	1.0	--
<i>Thymus mastichina</i>	Plant		40.0	-0.5403992550501685	Lawrence, B.M., <i>Essential Oils 1976-1977</i> , <i>Essential Oils 1978</i> , <i>Essential Oils 1979-1980</i> .
<i>Juniperus virginiana</i>	Leaf				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Capsicum annuum</i>	Fruit				--
<i>Eucalyptus dealbata</i>	Shoot		105.0	1.336445838244652	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264.
<i>Pimenta racemosa</i>	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Porophyllum ruderale</i>	Plant		15.0	-0.5556749240489263	Loayza, I., de Groot, W., Lorenzo, D. et al. 1999. Composition of the essential oil of <i>Porophyllum ruderale</i> (Jacq.) Cass. from Bolivia. <i>Flav. & Fragr. J.</i> 14: 393-8.
<i>Elsholtzia pilosa</i>	Shoot		1.4	-0.5316835762051991	--
<i>Origanum syriacum</i>	Shoot		0.0	-0.5569285682923593	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of <i>Origanum syriacum</i> L. <i>Essential Oil. J. Ess. Oil Res.</i> 3: 121-123.
<i>Origanum syriacum</i>	Shoot		0.0	-0.5569285682923593	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of <i>Origanum syriacum</i> L. <i>Essential Oil. J. Ess. Oil Res.</i> 3: 121-123.
<i>Coriandrum sativum</i>	Essential Oil				--
<i>Origanum syriacum</i>	Shoot		0.0	-0.5569285682923593	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of <i>Origanum syriacum</i> L. <i>Essential Oil. J. Ess. Oil Res.</i> 3: 121-123.
<i>Eucalyptus bosistoana</i>	Shoot		0.1	-0.5551253545718478	Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264.
<i>Teucrium polium</i>	Shoot		7.0	-0.43070360785655853	Perez-Alonso, M.J. Velasco-Negueruela, A. and Lopez-Saez, J.A. 1993. The Essential Oils of Two Iberian <i>Teucrium</i> Species. <i>J. Ess. Oil Res.</i> 5: 397-402.
<i>Tagetes minuta</i>	Essential Oil		800.0	-0.3954227110609452	--
<i>Ephedra sinica</i>	Shoot				--
<i>Laurus nobilis</i>	Leaf Essent. Oil				--
<i>Thymus orospedanus</i>	Plant				J. Nat. Prod.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Croton lechleri	Plant				Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.
Boswellia sacra	Essential Oil				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Eucalyptus diversicolor	Shoot		0.1	-0.5551253545718478	Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.